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Leadership Diversity: Effects of Counterstereotypical Thinking on the Support for
Women Leaders under Uncertainty

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Abstract

Despite societal shifts, women are still underrepresented in leadership positions. Previous research has shown that women are often placed in risky and precarious leadership positions. This is likely to be the case when the context (economic, social, political) is uncertain. This article investigates (1) the support given to women leaders with leadership styles that are congruent or not with gender stereotypes, under uncertainty (Study 1) and (2) the role of counterstereotypical thinking in widening the support for women leaders who are role congruent (Study 2). Study 1 shows a preference for strong, role incongruent women leaders in times of uncertainty. Study 2 shows that this preference can be attenuated and support widened to role congruent women following a counterstereotypical thinking intervention that challenge individuals social cognitive processing styles. This has important applied implications on how to effectively promote diversity in leadership, including under uncertain contexts.

[145 words]

Keywords

Leadership style, gender, diversity, counterstereotypes, uncertainty, innovation

Increasing globalization, ease of migration, and technological advancements have allowed for increases in social diversity in many institutions – educational, business, charity, health care, and so on. This has led to an increased study of diversity and the social and economic benefits it brings to groups, teams, and organisations. There is clear evidence to demonstrate the social, economic and productivity benefits of diversity, from a wide range of methodologies and perspectives. For example, diversity can promote creativity and productivity and improve responses to client/consumer needs (Bellini, Ottaviano, Pinelli, & Prarolo, 2013). Much less is understood about diversity in leadership, its potential for impact and the interplay between psychological processes and contextual factors that promote diversity in leadership. While globalisation and changing demographics have promoted an increase in social diversity within the workforce, women and racial and ethnic minority members remain underrepresented in positions of leadership across the world. While employment law supports equality, there are fewer women, and fewer racial minorities in leadership positions than would be expected based on workforce demographics and population demographics. This suggests that the barriers to leadership are based on *social* processes, such as unconscious bias, stereotyping, and failure to manage diversity effectively.

This article explores the impact of leadership style on the evaluation of women leaders. Specifically, in the context of female leadership, we consider whether counterstereotypical thinking can attenuate the biased preference for autocratic women leaders under uncertainty. As women are more likely to have, or expected to have, a democratic leadership style studying *how* to attenuate such biases is an important area to level the leadership playing field. Given the current socio-economic-political context, we focus on contextual uncertainty. Particularly, we investigate (1) whether the biased preference for authoritative leaders in uncertain times also applies when the leader is a woman and (2)

whether counterstereotypical thinking might be an effective strategy to promote support for women democratic leaders under uncertainty.

Leadership Styles and Leadership Preferences

It is well established that leadership styles significantly contribute to job satisfaction and overall performance within organisations and groups (e.g.; Jung, Chow, & Wu 2003; Lock & Crawford, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996; Ogbonna & Harris, 2000; Vermeeren, Kuipers, & Steijn, 2014). It has been shown that leaders with a democratic leadership style, encouraging participative behavior amongst followers or employees, are generally preferred and positively affect productivity whilst leaders with autocratic leadership styles stifle motivation and performance (e.g. Gastil, 1994b; Van Vugt, Jepson, Hart & De Cremer, 2004).

Leadership Preferences Under Uncertainty

While democratic leaders are generally preferred (Gastil, 1994a, 1994b; Lewin, Lippitt, & White, 1939) research has shown a preferential shift towards leaders with authoritative leadership styles in times of uncertainty, such as during a crisis or economic instability (Hogg & Adelman, 2013; Rast, 2015; Rast, Hogg, & Giessner, 2013; Schoel, Bluemke, Mueller, & Stahlberg, 2011). For example, in a series of studies Schoel and her colleagues (2011) showed that priming uncertainty results in greater preference for autocratic leadership. Similarly, Rast et al. (2013) have shown that self-uncertain employees were more supportive of organisational leaders with an autocratic leadership style. Given that authoritative leaders can negatively affect performance within groups and organizations (Van Vugt et al., 2004), this preferential shift might have detrimental consequences for organizations.

This is relevant to scholarly work on diversity and leadership because research shows that women are more likely to adopt a democratic leadership style and to encourage

participation (Eagly & Johnson, 1990; van Engen & Willmssen, 2004). In fact, there is some debate as to whether women's emphasis on democratic leadership results in a *female advantage* in leadership (Paustian-Underdahl, Walker, & Woehr, 2014). In their recent meta-analysis, Paustin-Underdahl et al. (2014) provided support for the idea that women leaders are perceived to have an advantage in leadership in terms of effectiveness, for specific types of organisations (i.e. business and education) and level of management (middle management and senior management).

Despite any possible advantage in “doing the job” of leadership, it remains the case that women are at a disadvantage when being selected for leadership positions, or evaluated as leaders (Robertson, Brummel, & Salvaggio, 2011; and see Hoyt, 2010 for a review). Research clearly points that this is due to a mismatch between the expected attributes of women as communal – e.g. caring, sensitive, compassionate; and of men and leaders as more agentic – e.g. dedicated, determined, competitive (e.g. Eagly & Karau, 1991; Eagly, Karau, & Makhijani, 1995; Heilman, 2001; Koenig, Eagly, Mitchell, & Ristikari, 2011; Rosette & Tost, 2010). As such, women leaders are role incongruous (Eagly & Carli, 2003; Heilman, 2001). This is further exacerbated with women leaders further downgraded when they adopt a more masculine style of leadership, for example an autocratic rather than democratic style (Eagly, Makhijani, & Klonsky, 1992), or as strong and not sensitive (Johnson, Murphy, Zewdie, & Reichard, 2008). For example, research applied to the US political context has revealed that gender role incongruity affects voting intentions (Gervais & Hillard, 2011). Specifically, Gervais and Hillard (2011) showed that Hillary Clinton, who was perceived to violate prescriptive norms of the gender role, was more likely to receive support when voters perceived her as warm.

Moreover, much is still unknown about the cognitive processes that underlie the shifts in leadership preferences in times of uncertainty or instability. Previous research has focused

on the motivational factors that might lead to such shifts in bias towards unexpected leaders in uncertain times. For example, it has been shown that preferences for authoritative leaders in times of economic difficulties are motivated by the leader's ability to reduce uncertainty within the individual, making authoritative leaders more attractive (De Hoogh, Greer, & Den Hartog, 2015; Rast et al., 2013; Schoel et al., 2011). Additionally the preference for women leaders in risky or precarious situations has shown to be motivated by gender stereotypic associations (Bruckmüller & Branscombe, 2010; Bruckmüller, Ryan, Rink, & Haslam, 2014) as well as motivations to signal change (Kulich, Lorenzi-Cioldi, Iacoviello, Faniko, & Ryan, 2015). Furthermore, our previous research has shown that contesting stereotypes and promoting flexible thinking can shift participants' information processing mode and attenuate biases in leadership decision making (Leicht, Randsley de Moura, & Crisp, 2014) and it can promote women's leadership aspirations under certain conditions (Leicht, Gocłowska, van Breen, de Lemus, & Randsley de Moura, in press).

Challenging Stereotypes and Leadership Biases

Given that leadership preferences are affected by individual differences in need for closure and structure (De Dreu, 2003), it is plausible that preferential biases for authoritative leaders in times of economic crisis could be based upon heuristic thinking. It has been shown that diversity experiences that challenge or contest stereotypes can reduce the reliance on stereotype application in intergroup perceptions (Crisp, Hewstone, & Rubin, 2001; Hall & Crisp, 2005; Hutter & Crisp, 2005). For example, research has shown that asking participants to form impressions of a counterstereotypical "Harvard educated brick layer" (Kunda, Miller, & Claire, 1990) or "female mechanic" (Hutter & Crisp, 2005) reduces application of stereotypes. This change in impression formation has been explained by dual processing models proposing that while individuals tend to use pre-existing categorical and thereby stereotypic information to form impressions and to structure the social environment

(Bodenhausen, Macrae, & Sherman, 1999; Fiske & Neuberg, 1990), as soon as the social environment provides information which is not sufficiently explained by existing knowledge structures, individuals switch from a categorical and heuristic based information processing mode into a more individuated and systematic processing mode (Chaiken & Trope, 1999; Fiske & Neuberg, 1990).

It has been proposed that under those conditions individuals do not simply apply the more systematic mode of thinking to the task at hand, but might carry it over to ostensibly unrelated tasks, yet ones that still rely on this same basic heuristic-systematic processing distinction (Crisp & Turner, 2011). Empirical studies have supported this hypothesis. For example, it has been shown that asking participants to generate gender-occupation counter-stereotypes (e.g., a female mechanic, male midwife) can increase lateral thinking in comparison to control conditions in which stereotypic targets or no targets were created (Vasiljevic & Crisp, 2013, Study 3). Moreover, research on creative performance has shown that exposure to counter-stereotypes can lead to enhanced performance on a subsequent creativity task (e.g. Gocłowska, Crisp, & Labuschagne, 2013; Gocłowska & Crisp, 2013). In addition, we have shown that contesting stereotypes can reduce biases in leadership preferences. Our research (Leicht et al., 2014) showed that contesting stereotypes and challenging gender stereotypic expectancies by asking participants to describe an individual with a counter-stereotypic occupation can reduce reliance on the heuristic association that being representative for one's group is a characteristic that is essential for good leadership, thereby increasing chances for successful leadership endeavors of individuals who are less representative (e.g. women in a male dominated field). In other words, our existing research shows that exposing individuals to situations in which stereotypes are contested can break down heuristic associations and biases within leadership decision processes.

Our paper breaks new ground in two ways. Firstly, we test whether the context of uncertainty might have advantages for the perception of role incongruous (vs. role congruous) women leaders. Gender role congruous leaders (in this case women leaders who are sensitive) are preferred to gender role incongruous leaders (i.e. women leaders who are strong; Johnson et al., 2008; see Eagley, 2017). The question remains as to whether this preference for strong leadership will be evident under conditions of uncertainty when the leader is a woman. The research outlined above which shows that uncertainty drives a preference for autocratic over democratic leaders suggests that this could also be an advantage for women leaders who are role incongruous and unexpected (strong rather than sensitive women leaders), over those who are role congruous (sensitive rather than strong women leaders), or at least *less* role incongruous. Second, we test whether counterstereotypical thinking acts as a boundary condition. We expect that when participants engage in a stereotypical thinking task there will be a preference for role congruous women leaders regardless of certainty. Whereas, following a counterstereotypical thinking task this preference will be attenuated and women who are role congruous will be evaluated as effective even under conditions of uncertainty. Given the evidence to suggest that women are more likely to adopt leadership styles that are democratic, transformational, and sensitive then counterstereotypical thinking is likely to have positive effects for the evaluation of women leaders overall.

The Present Research

Drawing on previous research that connected uncertainty with preference for strong authoritative leaders, Study 1 tests the hypothesis that participants who are primed with uncertainty (reminded of economic instabilities) will perceive a gender role incongruous woman leader (i.e. strong not sensitive) as more effective and innovative, than a woman leader described as having a gender role congruous (i.e. sensitive and not strong) leadership

style (Hypothesis 1). Study 2 tests this reasoning by investigating whether increasing systematic information processing through contesting gender occupation stereotypes and promoting counterstereotypical thinking can attenuate the biases against gender role congruous women leaders under conditions of uncertainty.

Study 1

Method

Participants, design, and procedure. Participants were 83 US MTurk workers and were allocated randomly in 2 (Uncertainty: certain vs uncertain) x 2 (Leadership Style: role incongruous vs role congruous) between-participants design. Participants were informed that the aim of this study was to investigate organizational decision-making and that as part of this study they would be presented with a candidate applying for a CEO position in a company that was going through major financial difficulties. First, we manipulated the economic instability of the company the candidate was applying to via an online newspaper article. This article had either of the following headlines: Lanitol Inc. on the hunt for new member of senior management team. The subtitle read: CEO looking for a new VP for a larger and stable [unstable] retail company. The actual article then framed the economic situation of the company in certain/uncertain ways by varying the following paragraph (adapted from Nevicka, De Hoogh, Van Vianen, & Ten Velden, 2013):

“Lanitol Inc. is a larger US based retail company with approximately 25 000 employees. It has found itself in a period of relative stability [difficulty] with stable [plummeting] share prices and a constant market share [loss in the market]. This is also reflected in recent company polls showing that employees feel little stress [a sense of stress] spreading throughout the organization.”

After participants were presented with this article they were asked to imagine themselves as part of the recruitment panel selecting the new Vice President of Financial Affairs for Lanitol Inc. We adapted the materials from the original study showing a preference for gender role congruous sensitive women leaders (Johnson et al., 2008). We then presented participants with a CV of one of the shortlisted candidates that included some basic information about the candidate “Joan Davenport” a summary of comments from people involved in the selection and recruitment process and job testing scores. The panel review and the job testing scores included the variation of the leadership style the candidate seemed to prefer with one CV presenting Joan Davenport as preferring a sensitive (not strong) leadership style and the other CV presenting Joan Davenport as a leader who prefers and strong (not sensitive) leadership style.

Dependent Variables

Leader effectiveness. To assess to what extent the target was perceived to be an effective leader, we adapted three items (from Johnson et al., 2008) asking how likely it is that the described CEO would succeed in her position, would be effective, and would improve the performance at Lanitol (1 *not at all* - 7 *very much*).

Innovation ability. With two items based on Abrams et al. (2008) participants indicated how much they agreed that the CEO would be able to initiate innovation in the company, and would be able to initiate change within the company (1 *not at all* - 7 *very much*).

Hire. We asked participants to indicate their agreement with the statement: “I would hire this candidate” (1 *strongly disagree* - 9 *strongly agree*).

Appointment Quality. Participants indicated their agreement to the statement: “This candidate would be a good appointment” (1 *strongly disagree* - 9 *strongly agree*).

Results

Results were analyzed with an Uncertainty x Leadership Style ANOVA on all the dependent measures. Means and standard deviations by condition are presented in Table 1.

Leader Effectiveness

An Uncertainty x Leadership Style ANOVA on the leader effectiveness score revealed no significant effects of uncertainty $F(1, 79) < 1$, or leadership style $F(1, 79) < 1$. The Uncertainty x Leadership Style interaction was significant, $F(1, 79) = 6.60, p = .012, \eta^2 = .08$. Figure 1 illustrates the findings, whilst simple effects analysis showed that the gender role incongruous (strong) leader was rated as higher in effectiveness within in the uncertain condition ($M = 5.25, SD = 1.21$) than the certain condition ($M = 4.32, SD = 1.24$), $F(1, 79) = 5.82, p = .02, \eta^2 = .07$. Furthermore, in the certain condition, and as expected based on previous research (e.g. Johnson et al., 2008), the gender role congruous (sensitive) leader was rated as higher in effectiveness ($M = 5.32, SD = 1.26$) than the leader with the strong leadership style ($M = 4.32, SD = 1.24$), $F(1, 79) = 6.57, p = .01, \eta^2 = .08$.

Innovation Ability

An Uncertainty x Leadership Style ANOVA on the ability to initiate innovation revealed no significant effects of uncertainty $F(1, 79) < 1$, or leadership style $F(1, 79) = 2.70, p = .10, \eta^2 = .03$. The Uncertainty x Leadership style interaction was significant, $F(1, 79) = 3.95, p = .05, \eta^2 = .05$. Figure 2 illustrates the findings, whilst simple effects analysis showed that only the strong leader, not the sensitive, was rated as higher in her ability to

initiate innovation in the uncertain condition ($M = 5.10$, $SD = 1.44$) than in the certain condition ($M = 4.28$, $SD = 1.14$), $F(1, 79) = 4.08$, $p = .047$, $\eta^2 = .049$. Moreover, participants who rated the leader for a company in a certain environment indicated that a gender role congruous (sensitive) leader would be more likely to initiate innovation ($M = 5.37$, $SD = 1.28$) than a gender role incongruous (strong) leader ($M = 4.28$, $SD = 1.14$), $F(1, 79) = 6.97$, $p = .01$, $\eta^2 = .08$.

Hire

An Uncertainty x Leadership Style ANOVA on the willingness to hire the target revealed no significant main effects of Uncertainty $F(1, 79) < 1$, or Leadership Style $F(1, 79) = 2.58$, $p = .11$, $\eta^2 = .03$. The Uncertainty x Leadership Style interaction was significant, $F(1, 79) = 6.08$, $p = .016$, $\eta^2 = .07$. Figure 3 illustrates the findings, whilst simple effects analysis showed participants were more likely to hire the role incongruous (strong) leader in the uncertain condition ($M = 6.17$, $SD = 1.88$) than participants in the certain condition ($M = 4.56$, $SD = 2.21$), $F(1, 79) = 6.01$, $p = .02$, $\eta^2 = .07$. Moreover, participants who rated the leader for a company in a certain environment were more likely to hire the role congruous ($M = 6.52$, $SD = 2.23$) than the role incongruous leader ($M = 4.55$, $SD = 2.21$), $F(1, 79) = 8.76$, $p = .004$, $\eta^2 = .10$.

Appointment Quality

An Uncertainty x Leadership style ANOVA on the ratings on how much participants thought that the candidate would be a good appointment revealed no significant effects of Uncertainty, $F(1, 79) < 1$, or Leadership Style $F(1, 79) < 1$. The Uncertainty x Leadership Style interaction was significant, $F(1, 79) = 4.57$, $p = .036$, $\eta^2 = .055$. Figure 4 illustrates the findings, whilst simple effects analysis showed participants were more confident that the appointment of the role incongruous (strong) leader in the uncertain condition would be a

good hire ($M = 6.50$, $SD = 1.98$), than did participants in the certain condition ($M = 5.00$, $SD = 2.49$), $F(1, 79) = 4.62$, $p = .04$, $\eta^2 = .055$. Moreover, participants who rated the leader for a company in a certain environment were more likely to rate a role congruous (sensitive) ($M = 6.57$, $SD = 2.25$) than the role incongruous (strong) leader ($M = 5.00$, $SD = 2.49$) as being a good appointment, $F(1, 79) = 4.94$, $p = .029$, $\eta^2 = .059$.

Discussion

Our results supported our hypotheses that in the context of high certainty, participants were more favorable towards a woman leader with a gender role congruous leadership style of sensitive not strong. When primed with certainty in the context, the gender role congruous sensitive woman leader was evaluated as more effective in her leadership endeavors and perceived to be more likely to initiate innovation and change. This is in line with previous research showing that there is a preference for women leaders who adopt a sensitive leadership style over a strong one (Johnson et al., 2008) and also connects to research showing that democratic leaders are generally evaluated more favorably. Moreover, participants were more likely to support the hire of the gender role congruous candidate and believed that she would make a better appointment. On the contrary and in line with our predictions, results show that in the uncertain context condition participants evaluated the gender role incongruous strong woman leader more positively than the sensitive woman leader. Specifically, when primed with uncertainty participants rated the candidate with the strong leadership style as more effective and more likely to initiate innovation and change, and as higher in intention to hire and appointment quality.

Our results support the hypothesis that under uncertainty, the preference shifts to women leaders who are gender role incongruous and adopt a strong not sensitive leadership style. This fits with previous research showing that uncertain contexts can change leadership

preferences, and shows that this is also true for women leaders. Given that, compared with men, women tend to be ascribed more communal vs. agentic characteristics at the workplace (i.e. they are perceived to be kind, helpful, sympathetic rather than aggressive, dominant, forceful) and taken that agentic characteristics are associated with control and dominance (i.e. more autocratic), women might often be perceived (and expected) to be more democratic than autocratic (Eagly & Johannesen-Schmidt, 2001). In fact, the evidence suggests that women leaders do adopt a more participative leadership approach (democratic, Eagly & Johnson, 1990; transformative, Eagly, Johannesen-Schmidt, & van Engen, 2003). As such, it is important to test the effectiveness of strategies to attenuate this bias for two reasons: 1) because women are more likely to be adopting leadership styles that are more gender role congruent, and 2) because women are more likely to be appointed under conditions of uncertainty (glass cliff effect, Ryan & Haslam, 2005).

Study 2 investigates whether engaging in counterstereotypical thinking (vs. stereotypical thinking) leads participants to rate women leaders who adopt leadership styles that are more gender role congruous (i.e. sensitive and not strong) to be more effective and able to innovate under uncertainty.

Study 2

Method

Participants and design. Participants were 166 undergraduate psychology students (131, female, $M_{age} = 19.14$). Participants were allocated randomly to a 2 (Task: Stereotypic vs. Counterstereotypic thinking) x 2 (Role Model Type: Mechanic vs. Midwife) x 2 (Leadership Style: Sensitive vs. Strong) between-participants design. Participants received partial course credit for participation.

Procedure. On arrival in the lab participants were told that they were taking part in two separate studies. The first section was framed as a study investigating the perception of people and social groups in general. This was to explain why we asked participants to create an impression and describe a target that either had a counterstereotypic (male midwife, female mechanic) or a stereotypic (female midwife, male mechanic) gender occupation.

After completing the stereotypic/counterstereotypic manipulation participants were asked to take part in a second section which was purportedly a separate study to investigate the perception and evaluation of leaders in the current economy. We told participants that they would be asked to read through a press release describing the leadership style of a newly appointed CEO in company and that we were interested in their perception of this leader (as Study 1, based on Johnson et al., 2008). The CEO (always a woman) was described either as having a strong or a sensitive leadership style, as in Study 1. After reading through the vignette, participants filled in the dependent variables. Based on research showing that forming an impression of an individual with a counterstereotypic gender occupation can debias perceptions, judgements, behaviors and choices in subsequent tasks, we predicted that this procedure should attenuate the established preference for a gender role incongruous leader in times of uncertainty, allowing gender role congruous women leaders to be evaluated as equally effective and able to innovate. We did not include the hire or appointment quality variables due to the student sample and the cover story regarding evaluation of leaders.

Dependent Variables

Manipulation check. In order to check whether the manipulation of counterstereotypicality was successful, participants were asked how similar they perceived the two social categories, how complex they thought this task was, how surprising and how

familiar they found the target. Each question was rated on a 7-point scale (1 *not at all* - 7 *very much*), and the combined average score was used in analysis, $\alpha = .80$.

Dependent variables. Participants completed measures of leader effectiveness ($\alpha = .89$) and innovation ability ($\alpha = .75$), as in Study 1.

Results

Results were analyzed with Task x Role Model x Leadership Style ANOVA on all the dependent measures. Means and standard deviations by condition are presented in Table 2.

Manipulation Check

A Task x Role Model Type ANOVA on the manipulation check revealed a significant main effect of Task, $F(1, 158) = 133.75, p < .001, \eta^2 = .45$, indicating that the counterstereotypic role model was perceived as less familiar ($M = 4.05, SD = 1.12$) than the stereotypic role model ($M = 2.28, SD = 0.83$) (higher numbers indicate less familiarity). As expected, Role Model Type, $F(1, 158) = 1.62, p = .20, \eta^2 = .01$, and Task x Role Model Type were not significant effects, $F(1, 158) < 1$.

Leader Effectiveness

A Task x Role Model Type x Leadership Style ANOVA revealed no significant effect of Role Model Type ($F(1, 158) < 1$), or Leadership Style ($F(1, 158) = 1.85, p = .175$). The main effect of Task was significant, showing that participants anticipated the leader to be more effective in the stereotypic condition ($M = 5.42, SD = 0.95$) than in the counterstereotypic condition ($M = 5.14, SD = 0.83$), $F(1, 158) = 4.23, p = .04, \eta^2 = .03$. This main effect was qualified by a significant Task x Leadership Style interaction, $F(1, 158) = 7.29, p = .008, \eta^2 = .04$. Figure 5 illustrates the findings, whilst simple effects analysis revealed that leadership effectiveness ratings were highest for strong (gender role

incongruous) leaders in the stereotypic role model condition ($M = 5.70$, $SD = 0.98$) and differed significantly from the ratings of a sensitive (gender role congruous) leader in the same condition ($M = 5.14$, $SD = 0.85$), $F(1, 158) = 8.36$, $p = .004$, $\eta^2 = .05$, and from strong leaders in the counterstereotypic condition ($M = 5.05$, $SD = 0.89$), $F(1, 158) = 11.32$, $p = .001$, $\eta^2 = .067$. The sensitive leader in the counterstereotypic condition ($M = 5.23$, $SD = 0.77$) was not rated differently to the strong leader in the counterstereotypic condition, $F(1, 158) < 1$. The analysis showed no further significant two and three way interaction effects (All F s < 1).

Innovation Ability

A Task x Role Model Type x Leadership Style on innovation revealed a significant Task x Leadership Style interaction, $F(1, 158) = 7.48$, $p = .007$, $\eta^2 = .045$ (all other effects were non-significant, all F s < 1). Figure 6 illustrates the findings, whilst simple effects analysis revealed that there was no difference in perceptions of the stereotypical condition for innovation ability, $F(1, 158) = 2.50$, $p = .12$, whereas in the counterstereotypical condition, the sensitive leader was perceived as significantly higher in innovation ability ($M = 5.50$, $SD = 0.73$) than the strong leader ($M = 5.01$, $SD = 0.91$), $F(1, 158) = 5.21$, $p = .019$, $\eta^2 = .034$.

Discussion

Study 2 tested whether counterstereotypical thinking can attenuate preferences for unexpected gender role incongruent (i.e. strong) women leaders in times of crisis and uncertainty. The manipulation check results indicated that participants who were asked to imagine and describe a counterstereotypic target experienced stereotype challenge within this condition more than when asked to describe a stereotypic target. Moreover, the results showed that whilst there is a clear preference for the strong woman leader in the stereotypic condition, describing a counterstereotypic individual consistently attenuated this preference.

Results also show that this effect is independent of the gender of the role model, suggesting that priming participants with counterstereotypical gender occupations led participants to expect greater effectiveness of leaders that would not be their preference would the context be certain, regardless of whether they are primed with counterstereotypical male or female occupations.

General Discussion

The purpose of this research was to contribute to the understanding of the promotion of diversity in the workplace, particularly regarding the evaluations of women leaders who adopt a gender congruent leadership style (sensitive). We extend previous research by 1) establishing that individuals turn to strong women leaders in times of economic instability (Study 1) and that 2) preferences for strong women leaders under conditions of uncertainty are attenuated with counterstereotypical thinking (Study 2). Study 1 showed that only in times of economic instability women leaders with a strong versus sensitive leadership style were perceived as being more effective and as being more likely to initiate innovation and change. Moreover, within the uncertain conditions participants were more inclined to hire the strong woman leader and indicated to be more confident in their hiring decision. In summation, these results indicate that whilst in times of economic stability participants rated the (expected) gender role congruent sensitive woman leader more favorably, in times of economic instability this preference shifted towards the (unexpected) strong woman leader. Study 2 also focused on exploring the social cognitive processes that contribute to this preferential bias and whether counterstereotypical thinking could attenuate it, which it did in this case.

Research on leadership in times of crisis, instability and uncertainty has mainly explored motivational factors contributing to leadership preferences. It has been shown that

in times of crisis and uncertainty preferences are in favor of unexpected leaders – like women leaders (Bruckmüller & Branscombe, 2010; Haslam, Ryan, Kulich, Trojanowski, & Atkins, 2009; Haslam & Ryan, 2008; Ryan, Haslam, & Postmes, 2007; Ryan, Haslam, Hersby, Kulich, & Atkins, 2007; Ryan, Haslam, & Kulich, 2010; Ryan & Haslam, 2005) or authoritative leaders (Rast et al., 2013; Schoel et al., 2011). Research on the glass cliff indicates that preferences for women leaders are driven by stereotypic associations (Bruckmüller & Branscombe, 2010) and the desire to signal change (Kulich et al., 2015). Our research extends these lines of research and sheds light onto the social cognitive processes that contribute to a change in leadership preferences in times of uncertainty. Specifically, our results indicate that leadership preferences change in times of uncertainty not only because individuals are driven by motivational factors (e.g. to reduce uncertainty or to signal change) but also by heuristic thinking.

We further inform the literature on the glass cliff effect (e.g., Ryan & Haslam, 2005) and show that women leaders with a strong leadership style (typically associated with men) would be the preferred option, which suggests that this switch in favor of women leaders is probably not only driven by the stereotypic association that women leaders will provide organizations with more communal aspects. Rather, and in line with most recent research on signaling change (Kulich et al., 2015), our results (particularly on capacity for innovation) support the notion that the preferential shift towards strong women leaders is associated with the desire for change. A limitation of the current work is that we have focused on women leaders only, and we had a relatively small sample size in Study 1. Nonetheless, Study 2 replicates the core finding and in a lab setting, but to investigate fully the implications of our findings for the glass cliff effect, further research would need to compare the results with men and women leadership candidates. It is possible that counterstereotypical thinking will also

lead to a reduction in the preference for strong (vs. sensitive) men as leaders in times of uncertainty.

Practical Implications

Having a productive and creative workforce is crucial for any business or organization. Given that leaders and their behaviors affect variables such as job satisfaction (e.g., Brown, Trevino, & Harrison, 2005; Lock & Crawford, 2004), employees' well-being (e.g., Avey, Wernsing, & Palanski, 2012), and turnover intentions (e.g., Douglas & Leite, 2016; Wells & Peachey, 2011), choosing the right leader is of the essence. Further, emergent democratic leaders have been found to be particularly effective and with important consequences on productivity (Gastil, 1994b). Therefore, the urge to choose and prefer an authoritative or strong leader in times of crisis could be particularly problematic and translate into negative outcomes both for organizations (e.g., leading to decreased productivity and loss of talent) and employees (e.g., potentially affecting their experiences at the workplace). Furthermore, it could potentially backlash against women leaders who tend to adopt a more gender congruent approach of being democratic or sensitive.

Another side effect might be the backlash against the strong women leaders that are appointed to leadership positions. Given that people generally prefer democratic leaders and tend to favor individuals who are stereotypically consistent, women leaders who are appointed under uncertain conditions might face tough opposition, which can then translate into problematic situations for those they lead, which can itself lead to heightened uncertainty about where the group/team/organization is going.

As such, it is essential for research to inform strategies that both promote gender diversity in leadership and allow for the reduction of heuristic thinking and improve innovation. In the organizational setting, promoting balanced reasoned decisions that consider

what is the best option for a particular team/group/organization can potentially have a positive impact on employees' and leaders' experiences, improve the effectiveness of groups and teams, and lead to better organizational outcomes. This research shows that counterstereotypical thinking enabled participants to see the benefits of having a sensitive woman leader guiding a company through the uncertainty of economic turmoil. This provides insights into how leadership decisions under uncertainty might be based on systematic information processing. Moreover, it shows that switching participants' mode of thinking might lead to more optimal leadership decisions with less bias, even when the context is uncertain.

Our findings further suggest that contesting stereotypes might also ameliorate glass cliff effects for women leaders (Ryan & Haslam, 2005). Study 2 showed that switching participants' mode of thinking by contesting their stereotypic expectancies attenuated participants' tendency to perceive "expected leaders" (i.e. sensitive women leaders) as more effective. Because, both the glass cliff and the glass ceiling effect are driven by stereotypic associations between leadership and gender characteristics, finding pathways by which the leadership stereotypes can be more inclusive and diverse would be a viable way of tackling other biases within leadership perceptions and choices. That said it is important to note that while Study 2 focused on investigating whether the preference for strong women leaders under uncertainty is attenuated via counterstereotypical thinking, intentions to hire were not measured in this study. Study 1 was set up as participants simulating being on a recruitment panel, whereas Study 2 was a lab based study with student participants asked to evaluate leaders. Future research should investigate whether, in addition to perceiving a sensitive woman leader more effective and able to innovate in times of uncertainty following counterstereotypical thinking manipulations, individuals are also more willing to hire such women leaders, ideally in experimental hiring simulation studies with people likely to be

involved in recruitment, and using more externally valid methods to understand how this translates in practice. Further work is clearly needed to unravel the complexity surrounding the leadership style and gender dynamics, and our studies can provide a springboard on which to further understand these complexities.

In the context of global socio-economic-political uncertainty, finding effective mechanisms that challenge individuals'/groups'/organizations' tendency to support strong autocratic leaders and instead promote social diversity in leadership gains renewed importance. Our findings suggest that strategies based on counterstereotypical thinking interventions might be effective and have important applied implications. Specifically, our findings suggest that organizations should be particularly wary of tendencies to support for women with gender role incongruent leadership styles only under contextual uncertainty, particularly considering that assuming such incongruent roles can potentially backlash against women leaders (and potentially against the teams that they lead and the organizations that they represent) (see Brescoll, Okimoto, & Vial, 2017). Counterstereotypical interventions can be effectively incorporated into training programs in organizations that target employees that sit on selection panels. More widely, such interventions might play a key role in widening leadership participation to those who, based on specific social categorizations, are unexpected or marginal leaders.

Conclusion

Leaders play a crucial role in steering companies and groups out of crisis and uncertainty. As such, it is concerning that research findings are uncovering a preference for authoritative leaders in times of crisis and uncertainty, who generally stifle motivation and creativity, or women leaders in order to signal change. Given the particular current socio-political-economic context, testing effective strategies to prevent individuals' tendency to turning to strong gender role incongruent women leaders can have important social and

practical implications. This research showed that this preferential bias can be attenuated by contesting stereotypes, this is particularly relevant when research demonstrates women do tend to lead in a more participative way (e.g. Rosenthal, 1998). It shows that contesting expectancies between workplaces roles and gender roles can lead to more systematic information processing and in doing so reduce the tendency to apply heuristics in leadership judgements and choices. Our research provides new insights in how leadership preferences under uncertainty can be de-biased leading to more considered leadership decisions, and we hope will act as a springboard for further investigation.

References

- Abrams, D., Randsley de Moura, G., Marques, J. M., & Hutchison, P. (2008). Innovation credit: When can leaders oppose their group's norms? *Journal of Personality and Social Psychology*, 95, 662-678. doi: 10.1037/0022-3514.95.3.662
- Avey, J. B., Wernsing, T., & Palanski M. (2012). Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics*, 107, 21–34. doi: 10.1007/s10551-012-1298-2
- Bellini E., Ottaviano G., Pinelli D., & Prarolo G. (2013). Cultural diversity and economic performance: Evidence from european regions. In R. Crescenzi & M. Percoco (Eds.), *Geography, institutions and regional Economic Performance*, (pp. 121–142). Berlin, Germany: Springer-Verlag.
- Bodenhausen, G. V., Macrae, C. N., & Sherman, J. W. (1999). On the dialectics of discrimination: Dual processes in social stereotyping. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology*, (pp. 271-290). New York: The Guilford Press.
- Brescoll, V. L., Okimoto, T. G., & Vial, A. C. (2017). You've come a long way...maybe: how moral emotions trigger backlash against women leaders. *Journal of Social Issues*.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: a social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134. doi: 10.1016/j.obhdp.2005.03.002
- Bruckmüller, S., & Branscombe, N. R. (2010). The glass cliff: When and why women are selected as leaders in crisis contexts. *British Journal of Social Psychology*, 49(3), 433–451. doi: 10.1348/014466609X466594

- Bruckmüller, S., Ryan, M. K., Rink, F., & Haslam, S. A. (2014). Beyond the glass ceiling: The glass cliff and its lessons for organizational policy. *Social Issues and Policy Review*, 8(1), 202–232. doi: 10.1111/sipr.12006
- Chaiken, S. & Trope, Y. (1999). Dual-process theories in social psychology. New York: Guilford Press.
- Crisp, R. J., Hewstone, M., & Rubin, M. (2001). Does multiple categorization reduce intergroup bias? *Personality and Social Psychology Bulletin*, 27(1), 76–89. doi: 10.1177/0146167201271007
- Crisp, R. J., & Turner, R. N. (2011). Cognitive adaptation to the experience of social and cultural diversity. *Psychological Bulletin*, 137(2), 242–266. doi: 10.1037/a0021840
- De Dreu, C. K. (2003). Time pressure and closing of the mind in negotiation. *Organizational Behavior and Human Decision Processes*, 91(2), 280–295. doi: 10.1016/S0749-5978(03)00022-0
- De Hoogh, A. H. B., Greer, L. L., & Den Hartog, D. N. (2015). Diabolical dictators or capable commanders? An investigation of the differential effects of autocratic leadership on team performance. *The Leadership Quarterly*, 26, 1–15. doi: 10.1016/j.leaqua.2015.01.001
- Douglas, K. M., & Leite, A. C. (2016). Suspicion in the workplace: Organizational conspiracy theories and work-related outcomes. *British Journal of Psychology*. Advance online publication. doi: 10.1111/bjop.12212
- Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal*, 45(4), 735–744. doi: 10.2307/3069307

- Eagly, A. H. (2017). Some leaders come from nowhere: their success is uneven. *Journal of Social Issues*.
- Eagly, A. H., & Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. *The Leadership Quarterly*, 14, 807–834. doi: 10.1016/j.leaqua.2003.09.004
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108(2), 233-256. doi:10.1037/0033-2909.108.2.233
- Eagly, A. H., & Johannesen-Schmidt, M. C. (2001). The leadership styles of women and men. *Journal of Social Issues*, 57, 781–797. doi:10.1111/0022-4537.00241
- Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, 129(4), 569-591. doi: 10.1037/0033-2909.129.4.569
- Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, 60(5), 685-710. doi: 10.1037/0022-3514.60.5.685
- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 117, 125 – 145. doi: 10.1037/0033-2909.117.1.125
- Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, 111, 3 – 22. doi: 10.1037/0033-2909.111.1.3
- Fiske, S. T. & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on

- attention and interpretation. *Advances in Experimental Social Psychology*, 23, 1-74.
doi: 10.1016/S0065-2601(08)60317-2
- Gastil, J. (1994a). A Definition and illustration of democratic leadership. *Human Relations*, 47(8), 953–975. doi: 10.1177/001872679404700805
- Gastil, J. (1994b). A meta-analytic review of the productivity and satisfaction of democratic and autocratic leadership. *Small Group Research*, 25(3), 384–410. doi: 10.1177/1046496494253003
- Gervais, S. J., & Hillard, A. L. (2011). A role congruity perspective on prejudice toward Hillary Clinton and Sarah Palin. *Analyses of Social Issues and Public Policy*, 11, 221–240. doi:10.1111/j.1530-2415.2011.01263.x
- Gocłowska, M. A., & Crisp, R. J. (2013). On counter-stereotypes and creative cognition: When interventions for reducing prejudice can boost divergent thinking. *Thinking Skills and Creativity*, 8, 72-79. doi: 10.1016/j.tsc.2012.07.001
- Gocłowska, M. A., Crisp, R. J., & Labuschagne, K. (2013). Can counter-stereotypes boost flexible thinking? *Group Processes & Intergroup Relations*, 16(2), 217–231. doi: 10.1177/1368430212445076
- Hall, N. R., & Crisp, R. J. (2005). Considering multiple criteria for social categorization can reduce intergroup bias. *Personality & Social Psychology Bulletin*, 31(10), 1435–44. doi: 10.1177/0146167205276084
- Haslam, S. A., & Ryan, M. K. (2008). The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *The Leadership Quarterly*, 19(5), 530–546. doi: 10.1016/j.leaqua.2008.07.011

- Haslam, S. A., Ryan, M. K., Kulich, C., Trojanowski, G., & Atkins, C. (2009). Investing with prejudice: The relationship between women's presence on company boards and objective and subjective measures of company performance. *British Journal of Management*, 21, 484-497. doi: 10.1111/j.1467-8551.2009.00670.x
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57, 657-674. doi: 10.1111/0022-4537.00234
- Hogg, M. A., & Adelman, J. (2013). Uncertainty-identity theory: Extreme groups, radical behavior, and authoritarian leadership. *Journal of Social Issues*, 69(3), 436-454. doi: 10.1111/josi.12023
- Hoyt, C. L. (2010). Women, men, and leadership: Exploring the gender gap at the top. *Social and Personality Psychology Compass*, 4, 484-498. doi:10.1111/j.1751-9004.2010.00274.x
- Hutter, R. R. C., & Crisp, R. J. (2005). The composition of category conjunctions. *Personality and Social Psychology Bulletin*, 31(5), 647-57. doi: 10.1177/0146167204271575
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616-42. doi: 10.1037/a0023557.
- Kulich, C., Lorenzi-Cioldi, F., Iacoviello, V., Faniko, K., & Ryan, M. K. (2015). Signaling change during a crisis: Refining conditions for the glass cliff. *Journal of Experimental Social Psychology*, 61, 96-103. doi: 10.1016/j.jesp.2015.07.002

- Kunda, Z., Miller, D. T., & Claire, T. (1990). Combining social concepts: The role of causal reasoning. *Cognitive Science*, 14, 551–577. doi: 10.1207/s15516709cog1404_3
- Johnson, S. K., Murphy, S. E., Zewdie, S., & Reichard, R. J. (2008). The strong, sensitive type: Effects of gender stereotypes and leadership prototypes on the evaluation of male and female leaders. *Organizational Behavior and Human Decision Processes*, 106, 39–60. doi: 10.1016/j.obhdp.2007.12.002
- Jung, D. I., Chow, C., & Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *The Leadership Quarterly*, 14, 525–544. doi: 10.1016/S1048-9843(03)00050-X
- Leicht, C., Crisp, R. J., & Randsley de Moura, G. (2013). Need for structure predicts leadership preference. *Group Dynamics: Theory, Research, and Practice*, 17(1), 53–66. doi: 10.1037/a0031476
- Leicht, C., Randsley de Moura, G., & Crisp, R. J. (2014). Contesting gender stereotypes stimulates generalized fairness in the selection of leaders. *The Leadership Quarterly*, 25(5), 1025–1039. doi: 10.1016/j.leaqua.2014.05.001
- Leicht, C., Goclowska, M.A., van Breen, J.A., de Lemus, S., & Randsley de Moura, G. (in press). Counter-stereotypes and feminism promote leadership aspirations in highly identified women. *Frontiers in Psychology*. doi: 10.3389/fpsyg.2017.00883
- Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created “social climates.” *The Journal of Social Psychology*, 10(2), 269–299. doi: 10.1080/00224545.1939.9713366

- Lock, P., & Crawford, J. (2004). The effect of organisational culture and leadership style on job satisfaction and organisational commitment: A cross-national comparison. *Journal of Management Development*, 23, 321-338. doi: 10.1108/02621710410529785
- Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the mlq literature. *The Leadership Quarterly*, 7, 385-425. doi: 10.1016/S1048-9843(96)90027-2
- Nevicka, B., De Hoogh, A. H. B., Van Vianen, A. E. M., & Ten Velden, F. S. (2013). Uncertainty enhances the preference for narcissistic leaders. *European Journal of Social Psychology*, 43(5), 370–380. doi: 10.1002/ejsp.1943
- Ogbonna, E., & Harris, L. C. (2000). Leadership style, organizational culture and performance: Empirical evidence from UK companies. *The International Journal of Human Resource Management*, 11, 766-788. doi: 10.1080/09585190050075114
- Paustian-Underdahl, S. C., Walker, L. S., & Woehr, D. J. (2014). Gender and perceptions of leadership effectiveness: A meta-analysis of contextual moderators. *Journal of Applied Psychology*, 99, 1129-1145. doi: 10.1037/a0036751
- Rast, D. E. (2015). Leadership in times of uncertainty: Recent findings, debates, and potential future research directions. *Social and Personality Psychology Compass*, 9(3), 133-145. doi: 10.1111/spc3.12163
- Rast, D. E., Hogg, M. A., & Giessner, S. R. (2013). Self-uncertainty and support for autocratic leadership. *Self and Identity*, 12(6), 635–649. doi: 10.1080/15298868.2012.718864

- Robertson L. N., Brummel B. J., Salvaggio A. N. (2011). Gender perceptions of managerial positions: Implications for work-related outcomes. *The Psychologist-Manager Journal*, 14, 1-28. doi: 0.1080/10887156.2011.546171
- Rosenthal, C. S. (1998). *When women lead: Integrative leadership in state legislatures*. New York: Oxford University Press.
- Rosette, A. S., & Tost, L. P. (2010). Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology*, 95(2), 221-235. doi: 10.1037/a0018204
- Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, 16(2), 81–90. doi: 10.1111/j.1467-8551.2005.00433.x
- Ryan, M. K., Haslam, S. A., & Postmes, T. (2007). Reactions to the glass cliff. *Journal of Organizational Change Management*, 20(2), 182–197. doi: 10.1108/09534810710724748
- Ryan, M. K., Haslam, S. A., Hersby, M. D., Kulich, C., & Atkins, C. (2007). Opting out or pushed off the edge? The glass cliff and the precariousness of women's leadership positions. *Social and Personality Psychology Compass*, 1(1), 266–279. doi: 10.1111/j.1751-9004.2007.00007.x
- Ryan, M. K., Haslam, S. A., & Kulich, C. (2010). Politics and the glass cliff: Evidence that women are preferentially selected to contest hard-to-win seats. *Psychology of Women Quarterly*, 34(1), 56–64. doi: 10.1111/j.1471-6402.2009.01541.x
- Schoel, C., Bluemke, M., Mueller, P., & Stahlberg, D. (2011). When autocratic leaders become an option--uncertainty and self-esteem predict implicit leadership preferences.

Journal of Personality and Social Psychology, 101(3), 521–40. doi:
10.1037/a0023393

van Engen M. L., & Willemssen, T. M. (2004). Sex and leadership styles: a meta-analysis of research published in the 1990s. *Psychological Reports*, 94(1), 3-18. doi:
10.2466/pr0.94.1.3-18

Van Vugt, M., Jepson, S. F., Hart, C. M., & De Cremer, D. (2004). Autocratic leadership in social dilemmas: A threat to group stability. *Journal of Experimental Social Psychology*, 40, 1-13. doi: 10.1016/S0022-1031(03)00061-1

Vasiljevic, M., & Crisp, R. J. (2013). Tolerance by surprise: Evidence for a generalized reduction in prejudice and increased egalitarianism through novel category combination. *PLoS ONE*, 8(3). doi: 10.1371/journal.pone.0057106

Vermeeren, B., Kuipers, B., & Steijn, B. (2014). Does leadership style make a difference? Linking HRM, job satisfaction, and organizational performance. *Review of Public Personnel Administration*, 34, 174-195. doi: 10.1177/0734371X13510853

Wells, J., & Peachey, J. W. (2011). Turnover intentions: Do leadership behaviors and satisfaction with the leader matter?. *Team Performance Management: An International Journal*, 17, 23-40. doi: 10.1108/13527591111114693

Table 1.

Means and Standard Deviations by Uncertainty and Leadership Style for all dependent variables (Study 1).

Leadership Style	Measure	Uncertainty	
		Certain	Uncertain
Role incongruous	Leadership Effectiveness	4.32 (1.24)	5.25 (1.21)
	Innovation ability	4.28 (1.14)	5.10 (1.44)
	Hire	4.55 (2.21)	6.17 (1.88)
	Appointment Quality	5.00 (2.49)	6.50 (1.98)
Role congruous	Leadership Effectiveness	5.32 (1.26)	4.79 (1.43)
	Innovation ability	5.37 (1.28)	5.00 (1.57)
	Hire	6.52 (2.23)	5.75 (2.46)
	Appointment Quality	6.57 (2.25)	5.88 (2.58)

Table 2.

Means and Standard Deviations Task and Role Model Type and Leadership Style for all dependent variables (Study 2).

Leadership Style	Role Model Type	Measures	Task	
			Stereotypic	Counterstereotypic
Sensitive	Mechanic	Leader Effectiveness	5.08 (0.88)	5.25 (0.90)
		Innovation Ability	5.05 (1.29)	5.42 (0.85)
	Midwife	Leader Effectiveness	5.20 (0.85)	5.21 (0.66)
		Innovation Ability	5.32 (0.78)	5.57 (0.62)
Strong	Mechanic	Leader Effectiveness	5.73 (0.75)	4.98 (0.88)
		Innovation Ability	5.45 (1.00)	5.11 (1.05)
	Midwife	Leader Effectiveness	5.67 (1.16)	5.11 (0.91)
		Innovation Ability	5.57 (1.04)	4.93 (0.79)

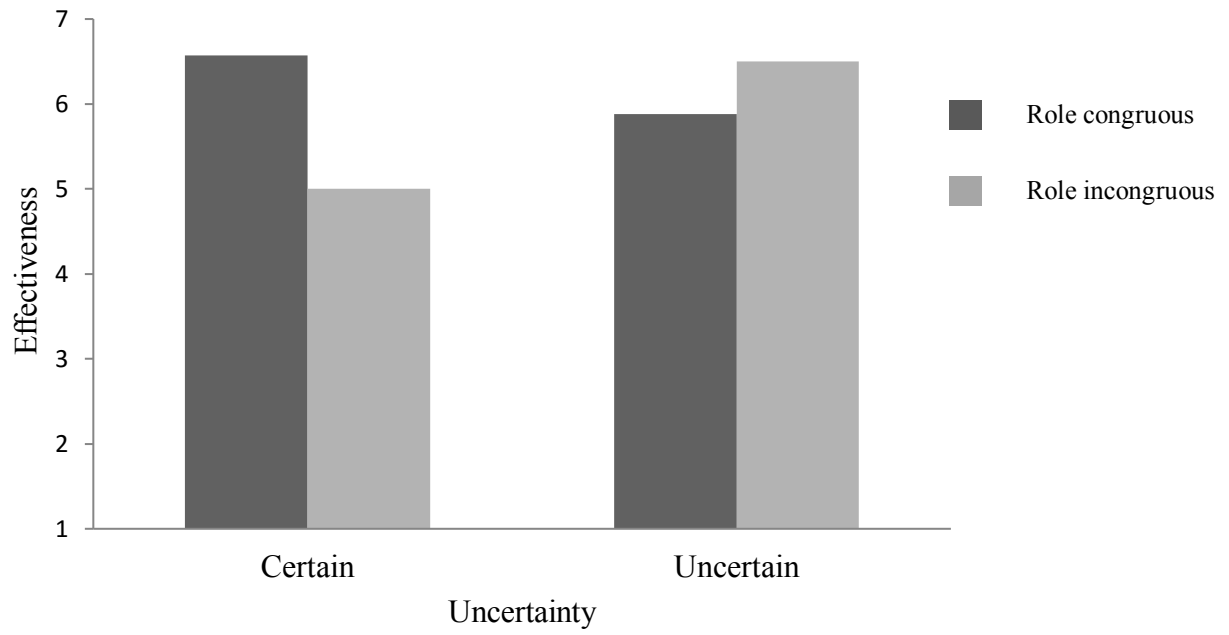


Figure 1. Effects of Leadership Style and Uncertainty on Effectiveness (Study 1).

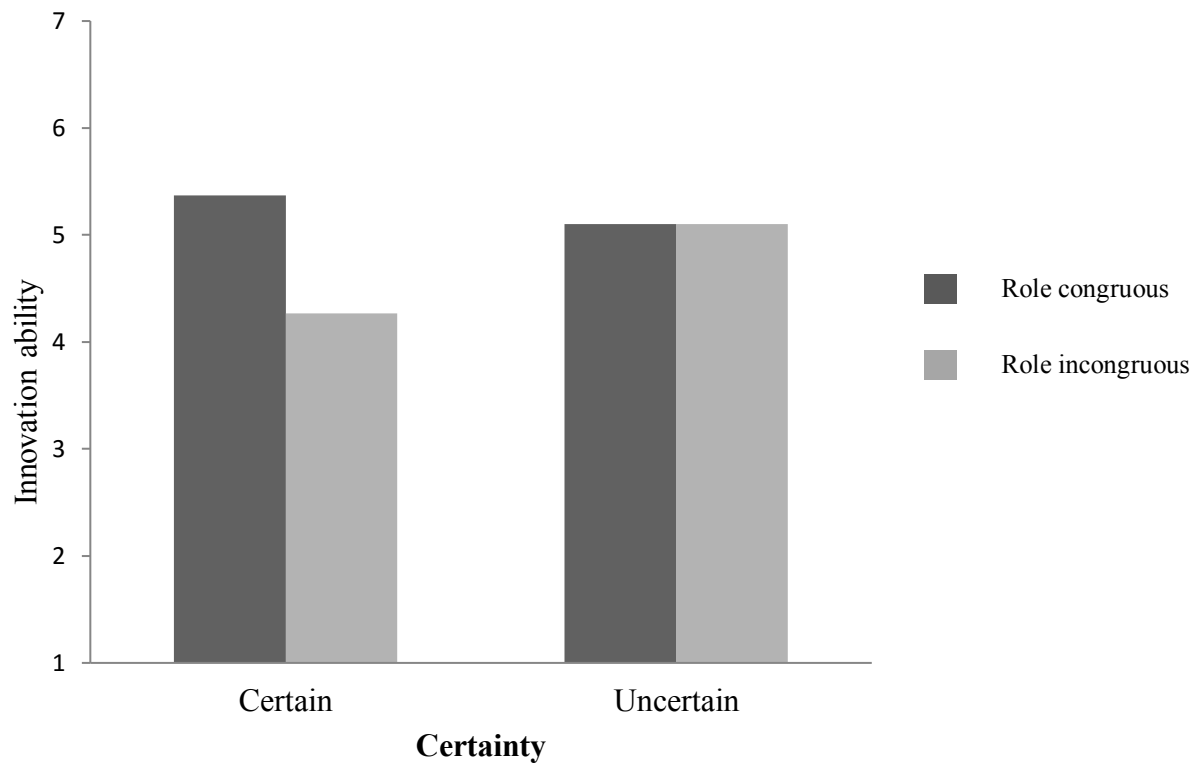


Figure 2. Effects of Uncertainty and Leadership Style on Innovation Ability (Study 1).

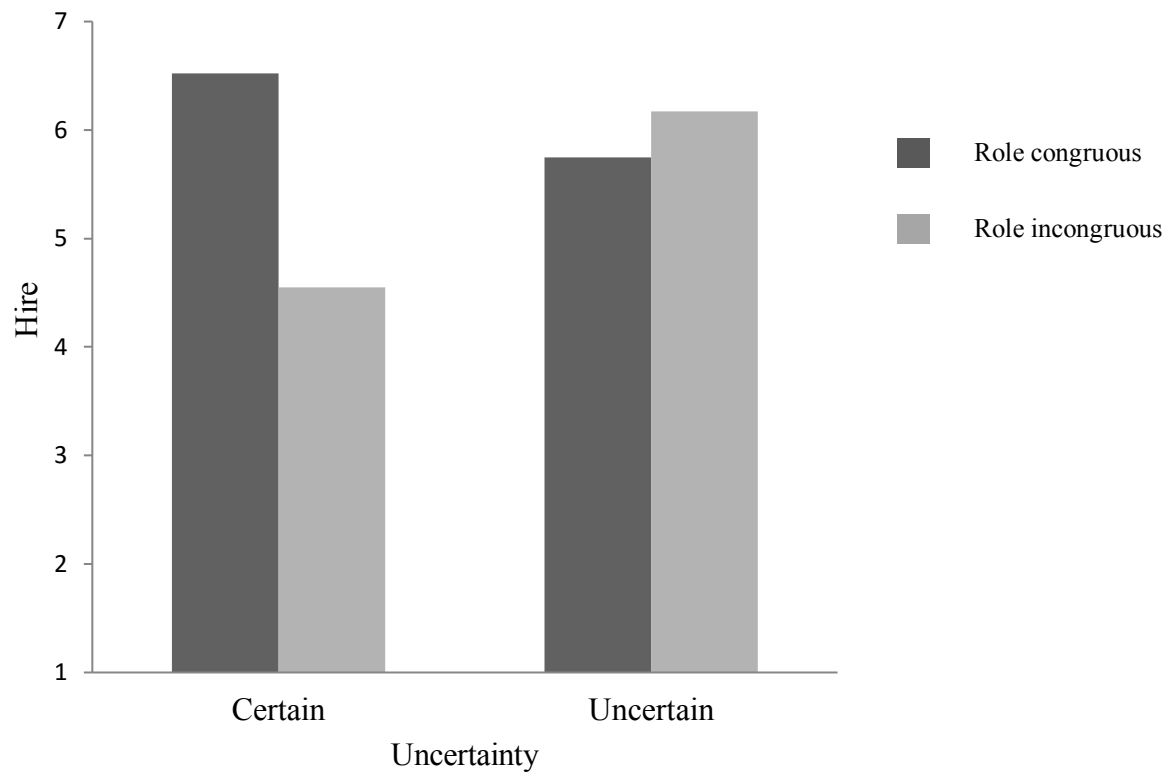


Figure 3. Effects of Uncertainty and Leadership Style on Hire (Study 1).

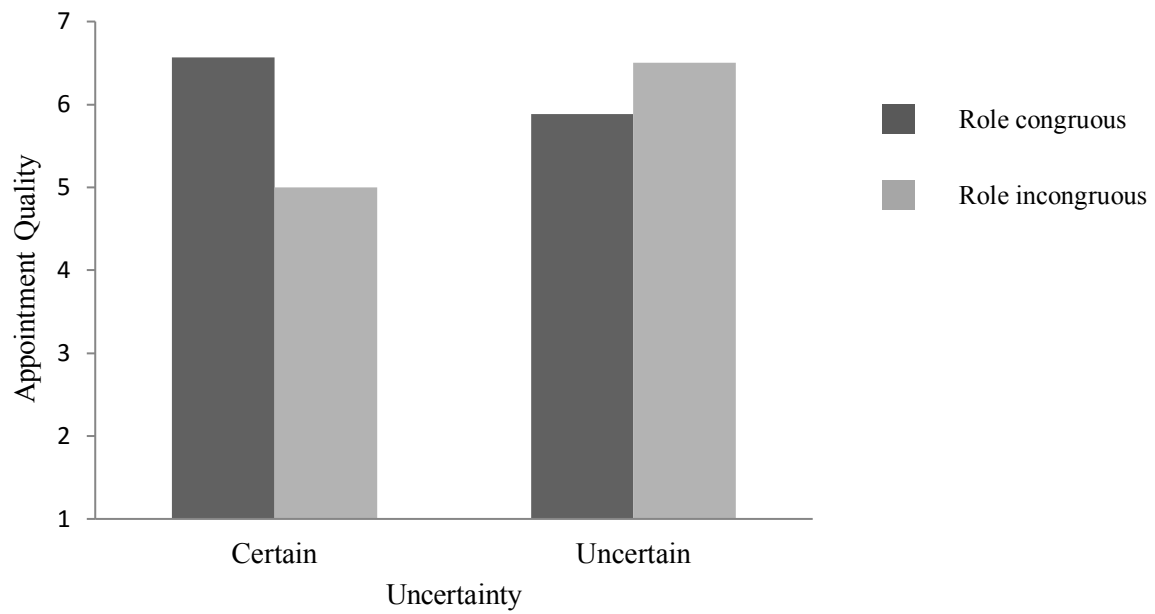


Figure 4. Effects of Appointment Quality and Uncertainty on Appointment Quality (Study 1).

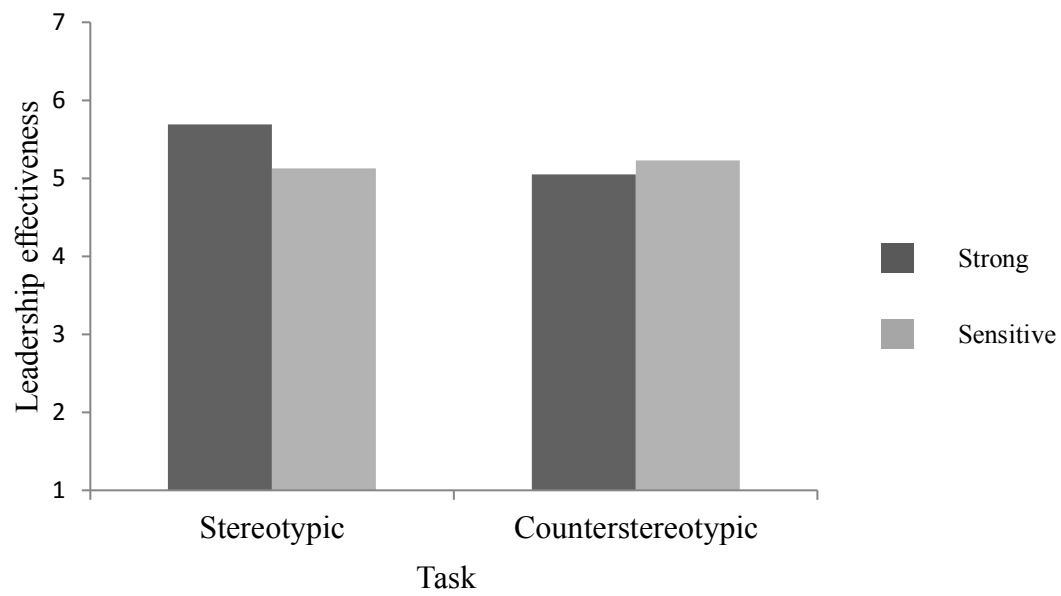


Figure 5. Effects of Task and Leadership Style on Leadership Effectiveness (Study 2).

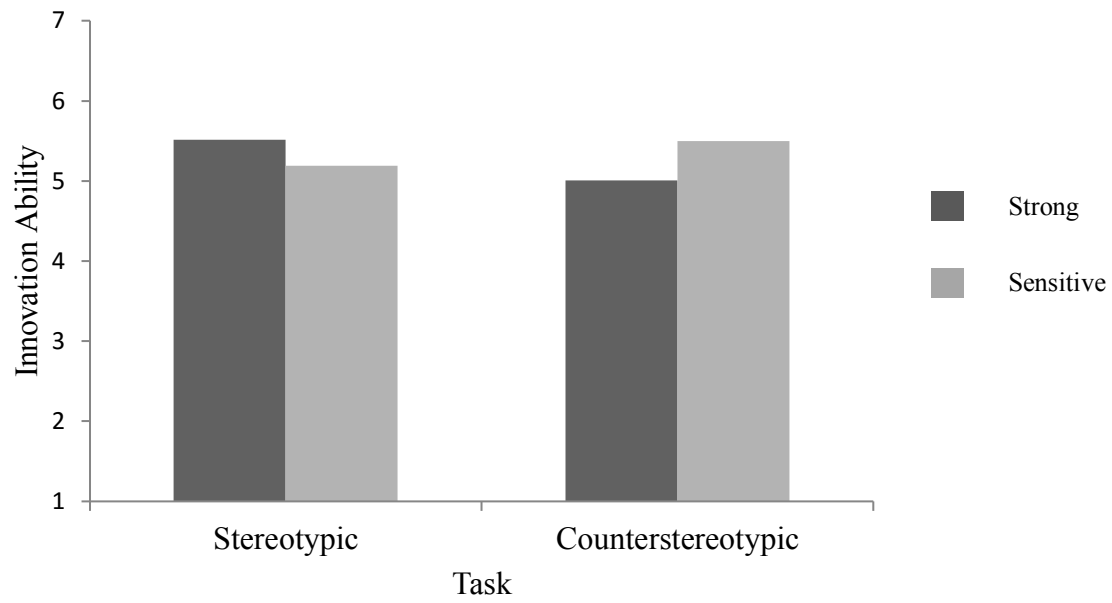


Figure 6. Effects of Task and Leadership Style on Innovation Ability (Study 2).

Author Bios

Georgina Randsley de Moura is an academic at the University of Kent. Georgina's research interests focus on areas of leadership and innovation, she specifically considers what happens when leaders do not meet their group's expectations, for example by breaking the rules or proposing radical change. Most recently Georgina has been considering how individuals, groups, and organizations identify and react to leadership potential. She also currently serves as the Head of the School of Psychology.

Carola Leicht received her Ph.D. from the University of Kent, UK in 2013. Since completing her Ph.D. she has worked as a post-doctoral researcher at Coventry University and at the University of Kent. Her main research interest lies in exploring how social cognitive biases that are affecting leadership perceptions, judgements and choices can be attenuated with a focus on how contesting stereotypes in general might facilitate that process. Her past research has shown that heuristic processing affects prototypicality perceptions in leadership and that exposure to female counter-stereotypic role models can lead to more fairness in leadership selection processes.

Ana C. Leite is a social and organisational psychologist with a background in consulting at Deloitte. Ana's research covers both basic research in social psychology as well as applied research in organisations. She is particularly interested in investigating the effects of social identification and social norms on group processes, organisational behaviour and well-being at work.

Malgorzata Gocłowska is a Marie-Curie research fellow at the University of Amsterdam. She obtained her PhD at the University of Kent in 2011. She is interested unusual targets (counter-stereotypes, social deviants), and experiences (schema-violations, diversifying experiences), and how they relate to flexible thinking and creativity. Her past research demonstrated that exposure to counter-stereotypes and schema-violations can prompt greater flexibility and creativity, provided that need for structure is low. Her current work looks at the role of open-mindedness in creativity and in reactions to social and cultural diversity.

Richard J. Crisp is Professor of Psychology at the Aston Business School. His research has developed a range of cognitive interventions to help improve tolerance, group productivity, creativity, confidence and leadership. He is former winner of the Gordon Allport Intergroup

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